

Editorial

2019 - Novel Coronavirus (COVID-19)

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Human coronaviruses have long been known as a cause of mild upper respiratory tract infections¹, accounting for about 10% to 30% of these infections in adults. However these viruses caused 2 important serious epidemics in the last 2 decades. The severe acute respiratory syndrome coronavirus (SARS-CoV) in 2002 in China, and Middle East respiratory syndrome coronavirus (MERS-CoV) in 2012 in Saudi Arabia. These two viruses emerged from animal reservoirs to cause the two global epidemics. The bat was considered the reservoir of both the (SARS-CoV) & of (MERS-CoV), the viruses in the bat seem unable to jump to humans & need some mammals to serve as intermediate hosts, facilitating recombination and mutation events with expansion of genetic diversity. The civet (whose meat is considered a delicacy in china) was considered the intermediate host for SARS-CoV, and the camel was recognized as the intermediate host for the MERS-CoV

In December 2019, a new novel coronavirus (2019-nCoV), called later (COVID-19), was recognized in Wuhan, China, as the cause of a new epidemic of acute respiratory syndrome. The WHO declared the outbreak a global emergency on January, 30th. The ultimate scope and effect of this outbreak is unclear at present as the situation is rapidly evolving. The biggest problem is that many people had left the infected area before the quarantine was started. These asymptomatic patients may have already transmitted the disease. All these syndromes share many similar clinical features; mainly acute respiratory illness causing severe pneumonia, some of the patients need respiratory support. The mortality of SARS was about 10%,

while that of MERS was 36%. The current mortality of 2019-nCoV is about 2.3%². In a case series paper of 138 hospitalized patients with nCoV –infected pneumonia in a single-center in Wuhan, China³, hospital-related transmission of 2019-nCoV was suspected in 41% of patients (29% were health care worker (HCW), 26% of patients received ICU care, and mortality was 4.3%. This high rate of infection in HCW indicate that awareness was not raised early. A doctor who talked about the possibility of an epidemic was punished for spreading false rumors, who himself later died of the disease⁴. This shows the importance of free speech not only in politics. but also in preventing the widespread of an infectious disease. Another published paper on the first 425 cases of 2019-nCoV in Wuhan⁵ showed; 55% of early cases were linked to live market, evidence of human-to-human transmission, the mean incubation period to be 5.2 days, the epidemic doubled in size every 7.4 days, and the basic reproductive number was estimated to be 2.2. The pangolin is possibly acting as the intermediate host for the new 2019-nCoV⁶. The live wildlife markets seem the perfect place for viruses to jump the species barrier, the wild animals are housed together, mixing occur between the animals & between them & humans, these markets were the source of SARS and the new virus⁷. No specific treatment is available, but some patients were treated with oseltamavir other with the investigational drug remdesivir that was used in the treatment of patients with MERS⁸. The virus had spread to at least 25 countries and as of February 11, more than 43000 cases had occurred and more than 1110 patients died². The virus had damaged the economy not only of

China but of many other Asian countries. The effect possibly will be noticed all over the world. SARS damage estimate was about 30-50 billion dollars⁹. The new virus is spreading at a rate six times faster than SARS, so the damage is expected to be more. The head of the WHO advised that all countries must be prepared for the virus possible arrival¹⁰.

Preparedness mean that health care institutions must have isolated rooms with negative pressure, enough intensive care beds, personal protective equipments for HCW to reduce occupational risk, with proper training and supervision. We hope that our health care institutions are well prepared

Reference:

1. Paules C, Marston H, Fauci A. Coronavirus Infections. JAMA. Published online January 23, 2020
 2. WHO, Novel Coronavirus (2019-nCoV) - Situation Report – 22. Feb 11,2020
 3. Wang D, Hu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus–Infected Pneumonia in Wuhan, China. JAMA, Published online February 7, 2020
 4. www.theguardian.com/global-development/2020/feb/07/coronavirus-chines-rage-over-death-of-whistleblower-doctor
 5. Li Q, Med M, Guan X et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia published on line January 29,2020. at NEJM.org
 6. www.the-guardian.com/world/2020/feb/07/pangolins-might-have-spread-corona-to-humans.
 7. Karesh W, Cook R. The Human –Animal link. Foreign Affairs 2005;84:38-50
 8. Sheahan TP, Sims AC, Leist SR, et al. Comparative therapeutic efficacy of remdesivir and combination lopinavir, ritonavir, and interferon beta against MERSCoV. Nat Commun 2020; 11: 222.
 9. www.the-guardian.com/news/2020/feb/10/will-the-coronavirus-outbreak-derail-the-global-economy/
 10. www-the-guardian.com/world/2020/feb/10/coronavirus-WHO-warns-transmission-by-people-who-had-not-visited-China-could-be-the-tip-of-iceberg .
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